

## **CIRCUIT FOR OPTIMIZING ZENER DIODE BIAS CURRENT**

### **ABSTRACT**

**[0032]** A circuit is provided that efficiently provides the required biasing current for a zener diode that provides a reference voltage to clamp the peak voltage of the sawtooth waveform generated by a sawtooth generator circuit. In a preferred embodiment, the present invention provides a circuit that switches the zener biasing current off, except during the short period when the referencing voltage is needed to provide the clamping function, thereby significantly reducing the current required.